Forms of Democracies and Financial Development

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Abstract

The political economy of finance literature emphasizes the critical role of political institutions in promoting financial development. Related empirical findings highlight a robust positive effect of democratic regimes on financial development compared to dictatorships. However, no study focused so far on identifying the precise political institutions explaining the financial development enhancing effect of democracies. In this paper, we study the effects of disaggregated political institutions on financial development along three institutional dimensions, namely forms of government, electoral rules and state forms. Using a large panel of 140 countries over 1984-2007, we show that institutional details are of crucial importance, since the positive effect of democracies on financial development clearly depends on the precise institutional dimensions at work, namely: parliamentary governments and, to a lesser extent federal states. Thus, our study contributes to the institutional design debate, by showing that the simple promotion of democratic regimes might not be sufficient to foster financial development.

Key words: Financial Development; Political Institutions; Positive Constitutional Economics; Comparative Politics.

JEL codes: D72; G28; H00; P48.

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1. Introduction

A vast body of literature highlights a positive effect of financial development on economic growth (Schumpeter, 1911; King and Levine, 1993; Levine, 1997, 2005), as well as on the improvement of populations' well-being (Beck et al., 2007; Demirgüç-Kunt and Levine, 2008; Guillaumont-Jeanneney and Kpodar, 2011). As a result, understanding the determinants of financial development has become a critical issue in the recent literature (Voghouei et al., 2011a). From this standpoint, institutions can be viewed as forefront long-run determinants of financial development. In this respect, the political economy of finance literature shows that better political institutions improve financial development through two key mechanisms: (i) more constrains on political leaders' discretion and (ii) more inclusiveness of the political decision-making process (Haber and Perotti, 2008). However, to the best of our knowledge, this literature has so far assessed the effect of political institutions on financial development mainly through the opposition between democracies and dictatorships (Girma and Shortland, 2004; Huang, 2010; Voghouei et al. 2011b; Yang, 2011).

Yet, Acemoglu (2005) and Acemoglu and Johnson (2005) show that the concept of democratic regime indiscriminately gathers a set of economic institutions (for example, the limitation of government's expropriation power related to property rights protection) and political institutions (for example, the various constitutional rules in place). Therefore, as Voigt (2011) suggests, it is necessary to go beyond the simple opposition between autocratic and democratic regimes.

In this paper, we open the political institutions black-box associated to democratic regimes, and explore the effects of disaggregated political institutions on financial development. We take advantage of constitutional economics and comparative politics literature, which provided valuable theoretical explanations regarding the effects of alternatives constitutional arrangements within democratic regimes on the political decision-making process. Using a large panel of 140 countries over 1984-2007, we disaggregate the overall effect of democratic regimes on financial development along three institutional dimensions, namely forms of government, electoral rules and state forms, with the goal of emphasizing the democratic institutional features that matter for explaining differences in financial development between autocracies and democracies.[1]

[1] In the comparative politics literature, these three political institutions are considered as the most representative features of democratic regimes (Gerring et al., 2005).

While we confirm that democratic regimes significantly increase financial development, our results show that institutional details are of crucial importance. Indeed, the positive effect of democracies on financial development is all the more important if democratic regimes are associated to parliamentary governments and, to a lesser extent, to federal states. Therefore, contrary to the traditional opposition between *centralist* and *decentralist* paradigms in political governance theories, the institutional setting promoting most the depth of financial activities, combines weak horizontal separation of powers (parliamentary governments) and strong vertical separation of powers (federal states). It reflects the constitutional arrangement of countries like Australia, Belgium, Canada, Germany, India, Pakistan and Spain for instance.

The rest of the paper is organized as follows. Section 2 reviews the related literature, section 3 presents the data and the methodology, section 4 illustrates our main results, section 5 analyzes the robustness of our findings, and section 6 concludes.

2. Literature review

We first discuss the literature on the relationship between political institutions and financial development. Then, based on constitutional economics and comparative politics, we take a closer look at the theoretical mechanisms linking political institutions to financial development.

2.1. Political institutions and financial development

In reference to Haber and Perotti (2008), two major institutional features enable to understand the effect of better political institutions on financial development. On the one hand, stronger control over political leaders' discretion ultimately results in better property rights protection and better implementation of contracts. This in turn decrease risks related to investment projects and therefore leads to an increased in capital accumulation.[2] One the other hand, more political rights induces more participation of citizen in the political decision-making process, as well as more constraints on choices made by political leaders. This results in the implementation of laws fostering access to a broader part of the population to financial systems, as well as more openness of domestic financial markets.[3]

[2] See for instance North and Weingast (1989) on the English Glorious Revolution in the late 17th century.
[3] For example, the United States during the first half of the 19th century and Mexico in the late 1990's.

From this standpoint, the effect of political institutions on financial development has been considered so far in the empirical literature in the following two ways. First, the impact of political regimes (democracies versus dictatorships) on financial development. Here, empirical analyses of Girma and Shortland (2004), Acemoglu and Johnson (2005), Huang (2010), Voghouei et al. (2011b) and Yang (2011) highlight a robust positive impact of democracies on financial development. Second, the effect of democratic political institutions, i.e. constitutional arrangements, on financial development. In this respect, very few empirical studies have addressed this issue (Bordo and Rousseau, 2006; Boudriga and Ghardallou, 2012). As a result, we need to characterize the relationship between democracies and financial development in a more in-depth way. To do this, we deal with three main constitutional features of democratic regimes, namely forms of government, electoral rules and state forms.

2.2. Political governance theories: a closer look at political institutions

According to Persson and Tabellini (2003), political institutions can be viewed as the institutional framework constraining the political decision-making process. As such, they ultimately explain the nature and quality of the implemented policies in a given political system.[4]

The literature discussed in section 2.1 insists on two main institutional mechanisms to explain the better ability of democracies to foster financial development compared with dictatorships: (i) the extent of constraints faced by political leaders when implementing public policies, and (ii) the inclusiveness of the political decision-making process. To explore this issue more in-depth, and link our political institutions variables to financial development, we draw upon comparative politics theories on political governance. At this point, we need to acknowledge that the literature on the political institutions-financial development nexus explains the financial development enhancing effect of better political institutions with institutional mechanisms very similar to those highlighted in political science for characterizing the nature of political governance associated to a given political system, namely the degree of (i) authority and (ii) inclusion of the political decision-making process (Gerring et al., 2005). As a result, linking these two concepts to the institutional determinants of financial development should help us to identify the precise forms of democracies that could foster the most financial development.

[4] Comprehensive literature reviews on the economic and political effects of political institutions include Persson and Tabellini (2003) and Voigt (2011).

Overall, the literature on political governance theories is structured around two main paradigms (Gerring et al., 2009).

On the one hand, to provide a stable environment, political leaders' behavior should be the most predictable possible (Henisz, 2000, 2004; Stasavage and Keefer, 2003), and emphasis must be placed on separation, diffusion, and fragmentation of political power. This political governance model is called *decentralist* in terms of horizontal separation of powers (i.e. the relationship between Executive and Legislative powers) and *federalist* regarding vertical separation of powers (i.e. the relationship between central governments and local powers). In this case, constitutional arrangements the most efficient in promoting a stable political environment are presidential forms of government, proportional electoral rules and federal states form.[5] This political institutions setup allows a strong reduction in political leaders' authority and increases the inclusiveness of the political decision-making process. This is precisely in line with the political economy of finance literature emphasizing a positive effect of political institutions on financial development if they reduce political leaders' discretion and increase the inclusiveness of the political decision-making process.

On the other hand, to adapt to changes in the economic, social and cultural environment, emphasis must be placed on the concentration of political power, with a flexible government having a strong leadership and being able to defeat significant conflicts of interests (Olson, 1982; Gerring et al., 2005, 2009). This political governance model is called *centralist* in terms of horizontal separation of powers and *unitarist* regarding vertical separation of powers. In this case, constitutional arrangements fostering a flexible political decision-making process are parliamentary forms of government, majoritarian electoral rules and unitary states.[6] This political institutions setup enables a softer limitation of political leader's authority and decrease the inclusiveness of the political decision-making process. In this respect, the law and finance literature (LaPorta et al., 1998; Beck et al., 2003) stresses that resistance to change is one of the main features of *Civil Law* systems which explains their poor performances in terms of financial development compared to *Common Law* ones. Hence, if we apply this theoretical argument to the relationship between political institutions and

[5] This constitutional configuration is also related to the Lijphart's (2002) consensus model of democracy. It refers for instance to the Swiss constitutional arrangement.
[6] This constitutional configuration is also related to the Lijphart's (2002) majoritarian model of democracy. It refers for instance to the Westminster (UK) constitutional arrangement.

financial development, one should expect a financial development enhancing effect of political institutions related to a limited horizontal and vertical separation of political powers.[7]

As result, identifying specific institutional features of democratic regimes that seem to *a priori* increase financial development is a fairly difficult task, which calls for a more detailed empirical analysis, since both paradigms of political governance have theoretical underpinnings suggesting their positive effect on financial development. Thus, our empirical analysis can be view as a test of the following two hypotheses:

Hypothesis #1 (the political economy of finance hypothesis): in order to foster financial development, emphasis should be placed on a stable political environment and constitutional arrangements the most efficient in achieving this goal are presidential forms of government, proportional electoral rules and federal states forms.

Hypothesis #2 (the law and finance hypothesis): in order to foster financial development, emphasis should be placed on a flexible political environment and constitutional arrangements the most efficient in achieving this goal are parliamentary forms of government, proportional electoral rules and unitary states forms.

3. Data and methodology

3.1. Data

We explore the relationship between political institutions and financial development using a panel of 140 countries over 1984-2007.[8] We use three-year averaged data as a compromise between two conflicting issues. On the one hand, the use of panel data allows accounting for within countries dynamics of financial development and its determinants. On the other hand, the FEVD estimator we draw upon is typically suited for panels with relatively large cross-sections and small time dimensions.

3.2. Financial development

In reference to Huang (2010), Voghouei et al. (2011b) and Boudriga and Ghardallou (2012), we use a composite index in order to account for financial development in a multidimensional

[7] Furthermore, Gerring et al. (2005) define a centripetal model of political governance slightly different to the traditional centralist model. This model enables less constraint on political leaders' discretion and more inclusion of the political decision-making process. Constitutional arrangements characterizing this model of political governance are parliamentary forms of government, proportional electoral rules and unitary states forms.

[8] Countries and time periods in our sample were selected on data availability. Table A in appendix 2 gives the list of countries in our sample.

way. According to Beck et al. (2008) and Cihak et al. (2012), financial development is a multidimensional concept, involving different actors (e.g. banks and stock markets), and different concepts, such as the size, stability and efficiency of financial systems. Ideally, our analysis should include all these dimensions to characterize the relationship between political institutions and financial development. However, given the limited availability of data for stock markets, as well as for the access and efficiency dimensions of financial development, we focus on broadly-available variables measuring the depth of financial institutions.

Our composite index of financial development is derived from the extraction of the first factor from the implementation of a Principal Component Analysis (henceforth PCA) to the following three indicators coming from the World Bank Global Financial Development Database of Cihak et al. (2012):

1. *Liquid liabilities to GDP* (measured by the ratio M3/GDP), as an indicator of the size of financial intermediaries' liabilities.
2. *Private credit to GDP* (measured by the ratio of credits to the private sector by banking and non-banking institutions over GDP), as an index of the activity of financial intermediaries from the perspective of one of their main functions, namely to canalize savings towards investment.[9]
3. *Deposit money bank assets/GDP* (measured as deposit banks assets/GDP), as an indicator of the size of financial intermediaries.

The resulting composite index of financial development associated to the first factor derived from the PCA (with an eigenvalue of 2.83) accounts for 94% of the total variance of these three variables. This result ensures that this variable depicts in a relevant way the overall banking sector depth dynamic for each country in our sample.[10]

3.3. Political institutions

Regarding political institutions, we created a binary indicator of political regimes based on the Polity2 index from the PolityIV database of Marshall and Jaggers (2010). Consistent with the classification of Przeworski et al. (2000), Persson and Tabellini (2003), Persson (2005), or Giavazzi and Tabellini (2005), this variable equals 0 (1) for autocratic (democratic) regimes,

[9] Levine (1997, 2005) considers this indicator as a good proxy for financial development. Moreover, it is one of the most commonly used indicators in the recent empirical literature on determinants of financial development.

[10] In addition, Table I in appendix 2 shows that these three banking sector variables are strongly correlated to each other, which further confirms the relevance of a PCA in order to compute a composite index of financial development.

namely when the Polity2 index is negative (positive).[11] Since our data are three-year averaged, a country is considered as democratic for the corresponding sub-period if it has a democratic regime during all three years, and as autocratic if not. Tables A in appendix 2 gives the distribution of political regimes for each country in our sample.

However, this political regimes variable only measures the aggregated dimension of democratic regimes. Thus, to go one step further, we follow Voigt (2012) and capture three additional and essential features of democracies, namely government forms, electoral rules and state forms.

These three constitutional arrangement variables are built as follows. Observations corresponding to democratic regimes (modality 1 of the political regimes variable) and characterized by a specific constitutional arrangement (e.g. parliamentary forms of government) are equal to 1. Otherwise, i.e. when the constitutional arrangement (e.g. semi-presidential and presidential governments) or the political regime (e.g. autocratic regimes) do not correspond to the institutional modality studied, observations are equal to 0. This way, we obtain three sets of constitutional arrangements variables: (i) three binary variables of government forms, equal to 1 if in a democratic regime government form is rather parliamentary, semi-presidential, or presidential, respectively, and equal to 0 otherwise (data used to create these variables come from the database of Cheibub et al., 2009); (ii) three binary variables of electoral rules, equal to 1 if in a democratic regime the electoral rule for electing members of the Lower House of Parliament is rather majoritarian, mixed, or proportional, respectively, and equal to 0 otherwise (data used to create these variables come from the database of Bormann and Golder, 2013);[12] and (iii) two binary variables of state forms, equal to 1 if in a democratic regime state form is rather unitary or federal, respectively, and equal to 0 otherwise (data used to create these variables come from the overlap of two sources, namely the 2013 World Factbook database from the CIA, and political data from each country sheet from the website Perspective Monde of Sherbrook University).

To summarize, the use of these eight political institutions variables allows us to disaggregate the overall effect of democratic regimes, with the goal of emphasizing what type of constitutional arrangements matter for explaining differences in terms of financial development between autocratic and democratic regimes. In particular, including autocratic

[11] Giavazzi and Tabellini (2005) show that using a zero threshold for the Polity2 variable in order to differentiate between democracies and dictatorships is particularly relevant, as crossing it (from negative to positive) is usually consistent with a significant improvement of institutions in the short-run, followed by a more gradual improvement.

[12] Since countries do not necessarily have a unicameral structure of their legislative power, we focus, to allow comparability of electoral rules across countries, on the electoral rule for the elections of members of the Lower House of Parliament.

regimes in the reference modality (0) of each political institution variable means that their estimated coefficients must be interpreted as the financial development differential between autocracies and democracies having this specific institutional feature.[13] Tables B1 and B2 in appendix 2 gives the distribution of our constitutional arrangements variables for each country in our sample.

3.4 Descriptive statistics

Table 1 highlights that banking sector depth is 70% higher in democratic regimes with respect to autocratic regimes. This result holds when we look at each of the three components of our aggregate index of financial development since compared to dictatorships, democratic regimes has a private credit/GDP ratio two times larger than autocratic regimes, as well as bank assets/GDP and liquid liabilities/GDP ratios 90% and 43% higher than autocratic ones, respectively.

Table 1. Political Regimes, Democratic Political Institutions and Financial Development

	Financial depth	**Private credit/GDP**	**Bank assets/GDP**	**Liquid liabilities/GDP**
Political Regimes				
Autocracy	-0.47	22.22	28.99	35.99
Democracy	0.24	45.12	55.22	51.47
Forms of Democracies				
Government Forms				
Presidential	0.03	35.49	41.44	43.01
Semi-presidential	0.08	44.18	52.51	44.4
Parliamentary	0.6	57.66	73.14	63.61
Electoral Rules				
Majoritarian	0.19	42.01	51.77	51.07
Mixt	0.39	51.23	63.17	60.23
Proportional	0.3	47.32	57.74	50.68
State Forms				
Unitary	0.12	39.95	48.55	47.66
Federal	0.5	58	72.4	60.71

Note: mean of financial development variables over 1984-2007 by political regimes and constitutional arrangements.

Moreover, such differences persist and are magnified when considering disaggregated political institutions variables: financial depth index lies between 0.03 for presidential governments and 0.60 for parliamentary governments. Overall, parliamentary governments

[13] Moreover, including autocracies in the reference modality (0) of each political institution variable allows us to exploit not only the between-country variability of political institutions, but also their within-country variability, due to the presence in our sample of a moderate number of countries that experienced at least one political transition from autocratic to democratic regimes (and vice-versa).

seem to be the most financial development enhancing constitutional arrangement, followed by federal states (0.50) and finally by mixed (0.39) and proportional (0.30) electoral rules. These results are the same when dealing with each of the three components of our aggregate index of financial development. Such differences call for a more detailed analysis of the effect of disaggregated political institutions on financial development.

3.5. Political institutions: non-random selection and high inertia in panel data

According to Persson and Tabellini (2003, 2004), the econometric analysis of the effects of political institutions faces two majors challenges, related to their non-random selection and their high inertia.

The non-random selection problem is related to the specification of our econometric model. Tables D and E in appendix 2 show that both political institutions and financial development are correlated with long-run geographic, historical and economic development factors, such as colonial and legal origins and income per capita. From this standpoint, drawing upon panel data to account for both observed heterogeneity (through control variables) and unobservable country and temporal heterogeneity (through country effects and time dummies), allows us to better tackle the potential non-random selection of political institutions. In addition, from a short-term perspective, Table E1 in appendix 2 shows that political institutions differ substantially along several first-order determinants of financial development, such as: trade and financial openness, inflation, inflation volatility and GDP growth. Thus, to avoid a misleading evaluation of the relationship between political institutions and financial development, we need to account for these short-term economic factors in our econometric specification.

As for the high inertia problem, it refers to the choice of the most appropriate estimator. Table A in appendix 1 shows that among the 140 countries in our sample, only 55 experienced at least one political transition from autocracy to democracy (or vice versa) over 1984-2007. The same inertia of political institutions is at work regarding constitutional reforms in democratic regimes (see Tables B1 and B2 in appendix 2): only 17 constitutional reforms in permanent democracies (of which 14 are related to electoral rules) and only 9 constitutional reforms in countries with political transitions (of which 7 are related to electoral rules). Finally, as illustrated by Table C in appendix 2, political regimes and constitutional arrangements variables display small within variability with respect to their between variability.

Given (i) potential endogeneity and (ii) high inertia of political institutions, we are left with few appropriate panel data methods. Regarding (i) endogeneity, the use of Propensity Score Matching (PSM, see Persson and Tabellini, 2007) is inappropriate for our analysis, which focuses on the disaggregated effect of political institutions. Indeed, in the case of our constitutional arrangements variables, a matching estimator would be impossible to implement with no less than eight treatment variables. In addition, as emphasized by Acemoglu (2005), the instrumental variables used so far in the literature[14] represent relevant determinants of a global institutional concept such as political regimes, including economic and political institutions, but certainly not instruments of the precise constitutional arrangements in place in a given democratic system. Furthermore, since we study in this paper the effects of eight political institutions variables on financial development, we would need at least two specific instruments for each political institution. Clearly, this represents a very challenging exercise given the aim of our paper.

Regarding (ii) inertia, the traditional within estimator would limit our analysis exclusively to the very limited subset of countries having experienced at least one political transition over 1984-2007, while a Least Square Dummy Variable (LSDV) estimator with country dummies would absorb most of the effects of the highly inertial institutional variables. Moreover, albeit the RE model is appropriate for estimating the effects of highly inertial variables, one challenging underlying assumption is the orthogonality between political institutions and random effects. This hypothesis is all the more likely to be respected if the variance proportion of our dependent variable explained by random effects is relatively small, which is not the case in our context as shown by preliminary estimates.[15] An alternative solution could be to resort to the Hausman-Taylor estimator (Hausman and Taylor, 1981) for correlated random effects. Nevertheless, this estimator is not suited in the case of highly inertial variables since it accounts for the correlation between explanatory variables and random effects by defining internal instruments including the within transformation of endogenous variables. Hence, like a fixed effect model using a within transformation, the Hausman-Taylor estimator enables us to instrument our political institutions variables only for

[14] For example, Persson and Tabellini (2003, 2004) instrument forms of government and electoral rules by the timing of adoption of the current constitution (between 1921-1950, between 1951-1980 and after 1980), cultural and geographic variables from Hall and Jones (1999), legal origin variables from La Porta et al. (1998), and colonial history variables from Acemoglu et al. (2001).

[15] When estimating the effects of our political institutions variables on financial development, we systematically obtained a variance proportion of our dependent variable explained by the random effects above 70%. Results are available upon request.

countries which have experienced at least one political transition over 1984-2007.[16] Finally, the inertia in institutions makes the use of the System-GMM estimator problematic, as applying the first-difference (to remove country unobserved heterogeneity in the difference equation and to instrument endogenous variables in the level equation) limits our sample to countries characterized by at least one political transition.

Taking into account these limitations, a viable strategy is to resort to the *Fixed Effects Vector Decomposition* (henceforth FEVD) estimator from Plümper and Troeger (2007, 2011) to assess the relationship between political institutions and financial development. This commonly used estimator in comparative politics is dedicated to the estimation of time-invariant and rarely changing variables in panel data models with country fixed effects.[17] In addition, Plümper and Troeger (2011), in response to Greene (2011) and Breush et al. (2011) criticisms, show that the FEVD estimator outperforms any other estimator when estimating models including time-varying variables correlated with unobserved individual effects and highly inertial explanatory variables, which precisely corresponds to our analysis framework.

3.6. The econometric model

In order to disaggregate the overall effect of democratic regimes on financial development, in a context of political institutions variables characterized by non-random selection and high inertia, we estimate the following model using Pooled Ordinary Least Squares (POLS), with the exception of the country fixed effects u_i, and the FEVD estimator (Plümper-Troeger, 2007, 2011).

$$Y_{it} = \alpha + \sum_{k=1}^{K} \beta_k X_{kit} + \gamma W_{it} + u_i + v_t + \varepsilon_{it} \quad (1)$$

Y stands for banking sector depth, α is a constant term, X includes our political institutions variables (with K the number of modalities for each categories of political institution tested) and W is a the vector of traditional determinants of financial development, namely the logarithm of GDP per capita, GDP growth, the logarithm of the inflation rate, inflation volatility, a *de jure* measure of financial openness and the logarithm of commercial openness.[18] v_t refers to time dummies, u_i denotes country fixed effects and ε_{it} is the idiosyncratic error term.

[16] Alternatively, drawing upon Mundlak's (1978) correlated random effects model, involving the use of country-specific averages of covariates, is equally inappropriate for our analysis, because this new set of variables would absorb most of the effects of our political institutions variables.

[17] See Caldeira (2012), Caldeira et al. (2012) and Heinemann et al. (2014) for recent implementations of this estimator.

[18] Appendix 1 presents the sources and the construction of these variables, and Tables E1 and E2 in appendix 2 provide descriptive statistics.

In order to briefly summarize the logic behind the FEVD estimator, we start with the following simplify version of eq. (1):

$$Y_{it} = \alpha + \beta X_{it} + \gamma W_{it} + \mu_i + \varepsilon_{it} \quad (2)$$

In a first step, we exclude the highly inertial variable *X* from eq. (1) and estimate this equation using OLS with a within data transformation:

$$(Y_{it} - \overline{Y_i}) = \gamma(W_{it} - \overline{W_i}) + (\varepsilon_{it} - \overline{\varepsilon_i}) \quad (3)$$

This enables to derive an estimate of the country fixed effects:

$$\mu_i = \overline{Y_i} - \gamma\overline{W_i} - \overline{\varepsilon_i} \quad (4)$$

In a second step, the predicted country fixed effects from step 1 are regressed on the inertial explanatory variables using OLS, in order to extract h_i, the remaining part of country fixed effects unexplained by the inertial variables *X*:

$$\mu_i = \beta X_{it} + h_i \quad (5)$$

In a third step, the predicted unexplained part of the fixed effects h_i from step 2 is introduced in eq. (2), which is estimated by OLS:

$$Y_{it} = \alpha + \beta X_{it} + \gamma W_{it} + \delta h_i + \varepsilon_{it} \quad (6)$$

4. Results

4.1. Political regimes

Regressions (1)-(3) in Table 2 show that irrespective to the estimated specification, democracies significantly increases financial development compared to dictatorships. Indeed, democracies improve financial depth by 70% (column 1), and then by 60% when we resort to the FEVD estimator and account for control variables (columns 2-3). Therefore, in line with previous results in the empirical literature on the relationship between political regimes and financial development (Acemoglu and Johnson, 2005; Girma and Shortland, 2008; Huang, 2010; Voghouei et al., 2011b; Yang, 2011), we find a significant and positive effect of democracies on financial development. Compared to autocratic regimes, democracies increase the inclusiveness of the political decision-making process, as well as constrains on political leaders' discretion; which in turn favor the enactment of laws promoting a broader access for population to formal financial systems and ensuring a deeper competition on domestic financial markets (Haber and Perotti, 2008).

4.2. Constitutional arrangements

Persson and Tabellini (2003) and Gerring et al. (2005, 2009) insist on the fact that different constitutional arrangements in democratic regimes involve different levels of inclusiveness of the political decision-making process, as well as different levels of constraints on political leaders' discretion. As a result, we need to identify what precise constitutional arrangements in a given democratic system matter for increasing financial development compared to dictatorships.[19]

Regarding forms of government, parliamentary governments have an estimated coefficient statistically higher to the estimated coefficient associated to the democratic regimes variable. Especially, parliamentary governments increase banking sector depth by 86% compared to autocratic regimes (column 6) and by 33% relative to the overall effect of democratic regimes (difference between columns 3 and 6). According to political governance theories, parliamentary governments are flexible forms of government allowing more discretion for political leaders and enabling to defeat significant conflicts of interests in the political decision-making process (Gerring et al. 2005, 2009). Therefore, parliamentary governments contribute to enhance financial development due to their better adaptation capacity to changes in the economic, social and cultural environment, which gives support to our hypothesis #2 in terms of horizontal separation of political power.

Moreover, moving to electoral rules, columns 7 and 8 show that mixed and proportional electoral rules have an estimated coefficient statistically higher to the estimated coefficient of democratic regimes. However, these results are not robust when we account for controls variables in column 9. Thus, contrary to Bordo and Rousseau (2006), our results do not suggest that electoral rules play a critical role in explaining the effect of democratic regimes on financial development.

Finally, when dealing with states forms, columns 10 to 12 highlight that federal states have an estimated coefficient statistically higher to the estimated coefficient of democratic regimes. According to column 12, federal states increase financial depth by 95% compared to autocracies and by 32% compared to the overall effect of democratic regimes (difference between columns 3 and 12). Political governance theories stress that federal states enable a strong vertical separation of power and increase the inclusiveness of the political decision-

[19] Political regimes variable is used as a reference to capture the overall impact of democracies on financial development compared to autocracies. This benchmark variable enables us to uncover constitutional arrangements displaying the largest effect on financial depth. Thus, when dealing with constitutional arrangements variables, we compare each of these latter variables with the democratic reference, and only keep variables with an estimated coefficient higher than the estimated democratic regime benchmark coefficient. This way, we identify constitutional arrangements which enhance the most financial development.

making process at local level (Gerring et al., 2005). Two main institutional features in line with our hypothesis #1, thus supporting the idea that a financial development enhancing constitutional arrangement in terms of vertical separation of power must be associated to a highly constrained and inclusive political-decision making process.[20]

Table 2: Forms of Democracies and Financial Development

	Political Regimes			**Government Forms**			**Electoral rules**			**State Forms**		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	OLS	FEVD	FEVD	OLS	FEVD	FEVD	OLS	FEVD	FEVD	OLS	FEVD	FEVD
Democracy	0.701***	0.596***	0.633***									
	[0.144]	[0.122]	[0.201]									
Presidential				0.491***	0.361	0.369						
				[0.179]	[0.268]	[0.294]						
Semi presidential				0.521**	0.362	0.321						
				[0.241]	[0.309]	[0.351]						
Parliamentary				1.070***	0.979***	0.864**						
				[0.170]	[0.233]	[0.393]						
Majoritarian							0.632***	0.487***	0.512**			
							[0.182]	[0.185]	[0.220]			
Mixt							0.818***	0.629***	0.610**			
							[0.239]	[0.215]	[0.249]			
Proportional							0.731***	0.615***	0.521			
							[0.168]	[0.225]	[0.353]			
Unitary										0.615***	0.522***	0.550***
										[0.146]	[0.129]	[0.191]
Federal										0.987***	0.866**	0.948*
										[0.211]	[0.384]	[0.514]
Controls	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Observations	894	688	606	817	621	543	818	622	544	894	688	606
R-squared	0.124	0.674	0.738	0.206	0.68	0.762	0.143	0.677	0.762	0.14	0.676	0.739

Note: robust standard errors are in brackets. Time dummies are included in each regression. *** p<0.01, ** p<0.05, * p<0.1.

Therefore, our results show that institutional details are of crucial importance, since the positive effect of democracies on financial development depends on the precise institutional dimensions at work. Further, our results go beyond traditional political governance theories since more financially developed countries are associated to democratic regimes allowing a flexible horizontal separation of power (with parliamentary governments) and a strong vertical separation of power (with federal states). Thus, in a given democratic regime, financial development will be all the more important if its constitutional arrangements enable low constrains on political leaders discretion at state level (horizontal dimension of

[20] Further theoretical arguments might explain this positive effect of federal states on financial development. Indeed, a strong vertical separation of powers could favor a deeper and sounder competition of financial sector through *foot voting* effect (Tiebout, 1956; Brennan and Buchanan, 1980; Ribstein and Kobayashi, 2006) and *laboratory* effect (Hayek, 1939; Oates, 1999). From this standpoint, *foot voting* effect could reflect citizens' and entrepreneurs' abilities to increase competition between local banks, thus encouraging these latters to implement attracting policies. Regarding l*aboratory effect*, it could reflect incentive for information disclosure and dissemination between local jurisdictions about the best practices in terms of financial activities management.

political power) and strong inclusiveness of the political decision-making process at local level (vertical dimension of political power). Hence, these results uncover a complementarity relationship between the political economy of finance theory (hypothesis #1) and the law and finance theory (hypothesis #2), when dealing with the constitutional determinants of financial development. Concretely, in our sample, this political system reflects for instance the constitutional arrangements of countries such as Australia, Belgium, Canada, Germany, India, Pakistan and Spain.

4.3. Political systems and joint estimates

We now go one step further and test the effect resulting from the interaction between parliamentary governments and federal states, namely the two constitutional arrangements which display a stronger effect on banking sector depth than democratic regimes as a whole. To this end, in Table 3, we resort to two strategies in order to account for these institutional interactions. On the one hand, we test a "*synergistic effect*" between parliamentary governments and federal states by computing a categorical variable equal to 0 for dictatorships, 1 for democracies, 2 for democracies with parliamentary governments *or* federal states, and 3 for parliamentary governments *and* federal states.[21]

On the other hand, we introduce in a same specification both parliamentary governments and federal states variables in order to check if the positive effect of both variables does not come from a systematic association between each other.[22]

Table 3. Political Systems and Joint Estimates

	Synergistic effect			**Competition**		
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	FEVD	FEVD	OLS	FEVD	FEVD
Synergy	0.450***	0.402***	0.364**			
	[0.0717]	[0.0963]	[0.162]			
Parliamentary				0.781***	0.754***	0.635*
				[0.142]	[0.254]	[0.369]
Federalism				0.408**	0.333	0.303
				[0.197]	[0.419]	[0.512]
Controls	No	No	Yes	No	No	Yes
Observations	817	621	543	817	621	543
R-squared	0.207	0.681	0.763	0.178	0.681	0.763

Note: robust standard errors are in brackets. Time dummies are included in each regression. *** p<0.01, ** p<0.05, * p<0.1.

[21] Resorting to the computation of a categorical variable seems to be especially relevant in our study context because (i) we do not have enough sample observations to precisely estimate the effect associated to a binary variable of such a political system; and (ii) to have more detailed information on the interaction effects between these two constitutional arrangements.

[22] Indeed, Table G in appendix 2 displays a strong bilateral correlation between these two constitutional arrangements variables.

Regarding the "*synergistic effect*", Table 3 shows that the interaction between parliamentary governments and federal states significantly increases financial depth by 154% to 205% compared to autocracies, by 86% to 110% relative to democracies having other constitutional arrangements, and by 36% to 45% compared to parliamentary non-federal governments or federal non-parliamentary states (columns 1-3).[23] Therefore, these results stress the increased ability of a *flexible federalism* in order to foster financial activities, owing to its better adaptation capacities (Tsebelis, 1995, 1999, 2002), stronger political governance, increased limitation of lobbies' bargaining power (Gerring et al., 2005, 2009) and broader inclusion of the political decision-making process at local level (Gerring et al., 2005).

Moreover, when we jointly estimate the effect of parliamentary governments and federal states, Table 3 highlights that parliamentary governments have an estimated coefficient systematically and statistically higher to the estimated coefficient of federal states (columns 4-6). However, federal states loss their significance when we resort to the FEVD estimator (column 5) and further adding control variables (column 6).[24] These results stress that parliamentary governments represent the key constitutional arrangement to ensure deeper and sounder financial development. As a result, Table 3 show that democratic regimes enhance financial development mainly through the *top-down* effect of parliamentary governments, allowing a flexible government with low constraints on political leaders discretion (Gerring et al., 2005, 2009), rather through the *bottom-up* effect of federal states, enabling a stable government and a broad inclusiveness of the political decision-making process at local level (Gerring et al., 2005). Thus, albeit complementary, the law and finance theories seem to better account for the enhancing financial development effect of democratic regimes rather than the political economy of finance theory.

Table 4 summarizes the institutional mechanisms that enable to explain our main results regarding the effects of governments and states forms on financial development.

[23] For instance in Table 3 column 3, the estimated coefficient of the synergy variable is 0.364. In other words, when synergy equals to 1, this leads to an improvement in financial depth by 36.4%. Then, when synergy equals to 2, this induces an improvement in financial depth by (1.364)*0.364 = 86.05%. Finally, when synergy equals to 3, this leads to an improvement in financial depth by (1.8605)*0.364 = 153.77%.

[24] Our results are similar when we introduce proportional or mixt electoral rules. The estimated coefficients of proportional and mixed electoral rules are never significant when we account for parliamentary governments and federal states. Results are available upon request.

Table 4. Constitutional Arrangements and Financial Development

		State forms	
		(I) Unitary states	(II) Federal States
Forms of Government	(A1) Presidential	(A1) Strong or (A2) moderate constraints on the Executive	(A1) Strong or (A2) moderate constraints on the Executive
	(A2) Semi presidential	(I) Weak inclusion of the political decision making process at local level	(II) Broad inclusion of the political decision making process at local level
	(B) Parliamentary	(B) Low constraints on the Executive (I) Weak inclusion of the political decision making process	(B) Low constraints on the Executive (II) Broad inclusion of the political decision making process at local level

Note: in red, constitutional arrangements promoting the most financial development.

5. Robustness

We explore the robustness of our previous findings by taking into account (i) alternative measures of financial development, (ii) alternative measures of political institutions, accounting for (iii) outliers and (iv) reverse causality.[25]

5.1. Alternative measure of financial development

In Tables A1 and A2, we check for an alternative definition of financial development. Our baseline indicator of financial depth relies on the first factor derived from the implementation of a PCA on the following variables: (i) bank assets/GDP, (ii) liquid liabilities/GDP and (iii) private credit/GDP. Our alternative measure of financial depth consists in replacing *deposit money bank assets/GDP* by *deposit money bank assets to deposit money bank assets and central bank assets*, as an index of the relative share of commercial banks in savings allocation. This latter variable comes from the Global Financial Development Database of Cihak et al. (2012).[26]

Table A1 shows that whatever the estimator and empirical specification we account for, democracies keep their significant and positive effect on financial development (columns 1 to 3). In addition, parliamentary governments and federal states still have a significant and positive effect on financial development (columns 4 to 6 and 10 to 12). Our baseline results are even reinforced under this alternative definition of financial development. Indeed, parliamentary governments increase banking sector depth by 107% compared to autocratic regimes (column 6) and by 30% relative to democratic regimes as a whole (differences between column 6 and 3). Likewise, federal states increase banking sector depth by 115% compared to dictatorships (columns 12) and by 37% relative to democratic regimes as a whole

[25] To simplify the presentation of this section and save space, all tables are reported in appendix 3.
[26] This measure of financial development has also been used by Voghouei et al. (2011b).

(differences between column 6 and 3). Furthermore, we still have few evidence on the positive effect of mixed electoral rules on financial development, since their estimated coefficient is only 0.3% higher to the overall democratic regimes effect, when using the FEVD estimator with control variables (see column 9).

Moreover, in Table A2, we provide further evidences on a synergistic effect between parliamentary governments and federal states (columns 1-3), since banking sector depth increases by 205% to 212% relative to autocracies, by 110% to 118% relative to democracies having other constitutional arrangements, and by 45% to 48% compared to parliamentary non-federal governments or federal non-parliamentary states. Last but not least, we still uncover robust evidences that the *top-down* effect of parliamentary governments outperforms the *bottom-up* effect of federal states (see columns 4-6).

5.2. Alternative measures of political institutions

In our benchmark analysis we equally assumed the presence of a democratic regime in a given sub-period if all three years were democratic. Since this definition could be viewed as conservative, we check sensitivity of our results by considering the following categorical variable: for a given country i at subperiod t, this new set of variables equals to 0 if autocratic, 1/3 if democratic during one year, 2/3 if democratic during two years, and 1 if democratic during three years.[27]

Table B1 and B2 show that our results are robust to these changes in our political institutions variables. Democracies still have a significant and positive effect on financial development (columns 1 to 3). Columns 4-6 and 7-9 confirm that parliamentary governments and federal states still outperform the overall effect of democracies on banking sector depth. Conversely, electoral rules do not lead to any statistical significant financial development gain compared to democracies as a whole. Moreover, our results also confirm the significant and positive synergistic effect resulting from the interaction between parliamentary governments and federal states (Table 17 columns 1-3). Finally and interestingly, we do not find strong evidence on the prevailing effect of parliamentary governments over federal states (see columns 4-6).

5.3. Accounting for outliers

Since our baseline results could be driven by the highly developed banking sector of some countries like for instance Germany, the United Kingdom, Japan, Switzerland or the United

[27] With this approach, we now interpret our results as the "*magnitude*" effect of political institutions on financial development, and not just as an occurrence effect.

States (which are also democratic regimes); we now check the robustness of our results from dropping outliers. To this end, we reestimate our specification including all control variables using *Weighted Least Square* (WLS) estimator. In sum, this estimator consists first in dropping observations with a Cook distance higher than one, and then reestimate our model with OLS estimator, where each remaining observation are weighted according to its estimated Cook distance.[28]

Table C shows that each baseline result is not sensitive to outliers, since we still find a significant and positive effect of democracies on banking sector depth (column 1). This latter effect is still smaller than the effect of parliamentary governments and federal states on financial development (column 2 and 4). In addition, parliamentary governments still outperform federal states (column 5), and the synergistic effect resulting from the interaction between these two political institutions remain statistically significant (column 6).

5.4. Accounting for reverse causality

Acemoglu et al. (2004) point that there could be a serious reverse causality issues between financial development and political institutions, since the former may help to mobilize resources to consolidate political reforms and ensure democratic transition. An alternative explanation provided by Giavazzi and Tabellini (2005) emphasizes that financial development implied stronger outside pressures, which in turn account for democratization. As a result, in Table D, we account for these arguments by estimating the effect of our financial development index on each political institutions variable by using a panel random effect probit model for political regimes and constitutional arrangement variables and a panel random effect ordered probit for the *synergy* variable. In reference to the literature on the determinants of political institutions (Persson and Tabellini 2003; Voigt, 2011), we further account for the following control variables in each specification: the logarithm of GDP per capita, the age of democracies, the fraction of neighboring countries having the same political institutions and a time trend.[29]

Table D shows that whatever the political institutions we account for, we do not find any evidence from a statistically significant effect of financial development on political

[28] Cook distance D_i for country i is computed in the following way: $D_i = \frac{\sum_{j=1}^{n}(Y_j - Y_{j(i)})^2}{p.MSE}$; where Y_j is the predicted value of the dependent variable for country j in the full model; $Y_{j(i)}$ is the predicted value of the dependent variable for country j in a model excluding observation i; *p* is the number of model parameters to be estimated and *MSE* stands for Mean Square Errors. The exhaustive list of dropped countries is available upon request.

[29] The term *neighboring countries* refers to countries belonging to the same geographic region as country i.

institutions.[30] As a result, the positive effects of parliamentary governments and federal states on financial development we have previously uncovered, is not subjected to reverse causality bias.

6. Conclusion

The political economy of finance literature emphasizes the critical role of political institutions in promoting financial development and related empirical findings highlights a robust positive effect of democratic regimes on financial development compared to dictatorships. In this paper, we go one step further and show that although democratic regimes appear to significantly and positively increase financial development, the simple opposition between democracies and dictatorships is not sufficient to account for differences in terms of financial development between countries, since the financial development enhancing effect of democracies depends on the precise institutional dimensions at work.

Indeed, by disaggregating the overall effect of democracies on financial development, we highlight a significant and highly heterogeneous relationship between democratic regimes and financial development. The positive effect of democracies on financial development is explained by the presence of very specific political institutions, namely: parliamentary forms of government and to a lesser extent federal state form. In line with political governance theories, these constitutional arrangements characterize a complementary relationship between a low horizontal separation of powers (centralist paradigm) and a strong vertical separation of powers (federalist paradigm). Thus, financial development will be all the more important if democratic regimes allow horizontal flexibility and vertical stability in the political decision-making process.

Therefore, our results stress that only advocating the implementation of democratic regimes in developing countries in order to promote economic and financial development is not sufficient. Since, developed banking sector is a precondition for sustainable economic growth and poverty reduction, policymakers must have to remind that specific constitutional arrangements may play a critical role in achieving macroeconomic objectives and promote populations well-being.

[30] Appendix A presents the sources and the construction of these control variables, and Tables G1 and G2 provide descriptive statistics.

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Appendix 1

List of variables

Financial depth: banking sector depth index based on the first factor derived from the implementation of a Principal Components Analysis on private credit/GDP, banks assets/GDP and liquid liabilities/GDP, from Global Financial Development Database (2012).

Financial depth2: banking sector depth index based on the first factor derived from the implementation of a Principal Components Analysis on private credit/GDP, liquid liabilities/GDP and deposit money bank assets to deposit money bank assets and central bank assets, from Global Financial Development Database (2012).

Credits to GDP (%): private credit by deposit money banks and other financial institutions to GDP from Global Financial Development Database (2012).

Liquid liabilities to GDP (%): M3/GDP from Global Financial Development Database (2012).

Bank assets to GDP (%): total assets held by deposit money banks as a share of GDP from Global Financial Development Database (2012).

Assets ratio (%): deposit money bank assets to deposit money bank assets and central bank assets from Global Financial Development Database (2012).

Political regimes: dummy variable = 1 if Polity2 index >0, = 0 otherwise, author's construction based on *Polity IV* database from Marshall and Jaggers (2010).

Governement forms: dummy variables = 1 if Presidential/Semi-Presidential/Parliamentary forms of governments & Polity2 index >0, = 0 otherwise, author's construction based on Cheibub and al. (2009).

Electoral rules: dummy variables = 1 if Majoritarian/Mixed/Proportional electoral rules & Polity2 index >0, = 0 otherwise, author's construction based on Bormann and Golder (2013).

State forms: dummy variables = 1 if Unitary/Federal states & Polity2 index >0, = 0 otherwise, author's construction based on CIA *The World Factbook* (2013) & *Perspective Monde* website from Sherbrook University.

Synergy: ordered variable which for a given country i in subperiod t equals to 0 if autocratic, 1 if democratic, 2 if democratic with a parliamentary government form or a federal state form, and 3 if democratic with a parliamentary government form and a federal state form, author's construction.

Log of (1+Age of democraties): the age of democracies equals to the average number of years by three-year sub-periods since a political regime is democratic (i.e. Polity2 index >0) and was not reversed until the end of our sample, author's construction based on Persson and Tabellini (2003) for old democratic regimes and from the Polity2 index for recent democratic regimes.

Log GDP per capita: logarithm of Purchasing Power Parity converted GDP per capita (Chain Series), at 2005 constant prices, based on Penn World Table 7.1 (2013).

GDP growth: growth of GDP per capita, author's construction, based on Penn World Table 7.1 (2013).

Log (1 + inflation): logarithm of 1 + annual percentage change in Consumer Price Index, author's construction, based on World Development Indicators (2013).

Log trade openness: logarithm of the sum of imports and exports over GDP at 2005 constant price (%), based on Penn World Table 7.1 (2013).

Financial Openness: KOAPEN index based on principal components extracted from disaggregated capital and current account restriction from Chinn and Ito (2011).

Inflation volatility: standard deviations of Log (1 + inflation) by three-year sub-periods, author's construction, based on World Development Indicators (2013).

Neighbouring democracy: proportion of democratic regimes in countries belonging to the same geographic region as country i.

Neighbouring government forms: proportion of Presidential/Semi-Presidential/Parliamentary forms of governments in countries belonging to the same geographic region as country i.

Neighboring electoral rules: proportion of Majoritarian/Mixed/Proportional electoral rules in countries belonging to the same geographic region as country i.

Neighboring state forms: proportion of Unitary/Federal states in countries belonging to the same geographic region as country i.

Neighboring synergy: mean of the synergy variable for countries belonging to the same geographic region as country i.

Appendix 2 - Descriptive Statistics

Table A. Political repartition of the 140 countries in our sample

Permanent Dictatorships	**Permanent Democracies**	**Political Transitions**
37 countries	**48 countries**	**55 countries**
Afghanistan	Argentina	Albania
Angola	Australia	Burundi
United Arab Emirates	Austria	Benin
Burkina Faso	Belgium	Bangladesh
Bahrain	Bolivia	Bulgaria
Bhutan	Botswana	Brazil
China	Canada	Central African Republic
Cote d'Ivoire	Switzerland	Chile
Cameroon	Colombia	Congo Brazzaville
Cuba	Costa Rica	Comoros
Egypt	Cyprus	Djibouti
Gabon	Czech Republic	Algeria
Guinea	Germany	Ethiopia
Equatorial Guinea	Denmark	Fiji
Iraq	Dominican Republic	Ghana
Jordan	Ecuador	Gambia
Kuwait	Spain	Guinea Bissau
Laos	Estonia	Guatemala
Libya	Finland	Guyana
Morocco	France	Croatia
Mauritania	United Kingdom	Haiti
Oman	Greece	Hungary
Qatar	Honduras	Indonesia
Rwanda	India	Iran
Saudi Arabia	Ireland	Kenya
Sudan	Israel	Cambodia
Singapore	Italy	Korea South
Somalia	Jamaica	Lebanon
Swaziland	Japan	Liberia
Syria	Sri Lanka	Lesotho
Chad	Moldova	Madagascar
Togo	Macedonia	Mexico
Tunisia	Mauritius	Mali
Tanzania	Malaysia	Mongolia
Uganda	Netherlands	Mozambique
Vietnam	Norway	Malawi
Yemen	New Zealand	Niger
	Papua New Guinea	Nigeria
	Portugal	Nicaragua
	Russia	Nepal
	El Salvador	Pakistan
	Slovenia	Panama
	Sweden	Peru
	Trinidad	Philippines
	Turkey	Poland
	United States	Paraguay
	Venezuela	Romania
	South Africa	Senegal
		Solomon Islands
		Sierra Leone
		Thailand
		Uruguay
		Congo Kinshasa
		Zambia
		Zimbabwe

Table B1. Constitutional arrangements in the 48 permanent democracies in our sample

Country	Gvt. forms	Electoral rules	State forms	Const reforms
Argentina	Pres	Prop	Fed	
Australia	Parl	Maj	Fed	
Austria	Semi pres	Prop	Fed	
Belgium	Parl	Prop	Fed	
Bolivia	Pres	Prop	Uni	1984-1996
	Pres	Mixt	Uni	1997-2007
Botswana	N-A	N-A	Uni	
Canada	Parl	Maj	Fed	
Switzerland	Pres	Prop	Fed	
Colombia	Pres	Prop	Uni	
Costa-Rica	Pres	Prop	Uni	
Cyprus	Pres	Prop	Uni	
Czech Rep (obs : 1993-2007)	Parl	Prop	Uni	
Germany	Parl	Mixt	Fed	
Denmark	Parl	Prop	Uni	
Dominican Rep	Pres	Prop	Uni	
Ecuador	Pres	Prop	Uni	1984-1997
	Pres	Mixt	Uni	1998-2001
	Pres	Prop	Uni	2002-2007
Spain	Parl	Prop	Fed	
Estonia (obs : 1991-2007)	Parl	Prop	Uni	
Finland	Semi pres	Prop	Uni	
France	Semi pres	Maj	Uni	1984-1985
	Semi pres	Prop	Uni	1986-1987
	Semi pres	Maj	Uni	1988-2007
United Kingdom	Parl	Maj	Uni	
Greece	Parl	Prop	Uni	
Honduras	Pres	Prop	Uni	
India	Parl	Maj	Fed	
Ireland	Semi pres	Prop	Uni	
Israel	Parl	Prop	Uni	
Italy	Parl	Prop	Uni	1984-1993
	Parl	Mixt	Uni	1994-2005
	Parl	Prop	Uni	2006-2007
Jamaica	Parl	Maj	Uni	
Japan	Parl	Maj	Uni	1984-1995
	Parl	Mixt	Uni	1996-2007
Sri Lanka	Pres	Maj	Uni	1984-1988
	Pres	Prop	Uni	1989-2007
Moldova (obs : 1991-2007)	Parl	Prop	Uni	1991-1996
	Semi pres	Prop	Uni	1997-1999
	Parl	Prop	Uni	2000-2007
Macedonia (obs : 1991-2007)	Semi pres	Maj	Uni	1991-1997
	Semi pres	Prop	Uni	1998-2007
Mauritius	Parl	Maj	Uni	
Malaysia	N-A	N-A	Fed	
Netherlands	Parl	Prop	Uni	
Norway	Parl	Prop	Uni	
New Zealand	Parl	Maj	Uni	1984-1995
	Parl	Mixt	Uni	1996-2007
Papua New Guinea	Parl	Maj	Uni	
Portugal	Semi pres	Prop	Uni	
Russia (obs : 1992-2007)	N-A	N-A	Fed	
El Salvador	Pres	Prop	Uni	
Slovenia (obs : 1991-2007)	Semi pres	Prop	Uni	1991-2002
	Parl	Prop	Uni	2003-2007
Sweden	Parl	Prop	Uni	
Trinidad and Tobago	Parl	Maj	Uni	
Turquey	Parl	Prop	Uni	1984-1986
	Parl	Mixt	Uni	1987-1994
	Parl	Prop	Uni	1995-2007
United States	Pres	Maj	Fed	
Venezuela	Pres	Prop	Fed	1984-1992
	Pres	Mixt	Fed	1993-2007
South Africa	N-A	N-A	Fed	

Table B2. Constitutional arrangements in the 55 countries with political transitions in our sample

Country	Gvt. forms	Electoral rules	State forms	Democratic periods
Albania	Parl	Mixt	Uni	1990-1995
	Parl	Mixt	Uni	1997-2007
Burundi	Pres	Prop	Uni	2002-2007
Benin	Pres	Prop	Uni	1991-2007
Bangladesh	Parl	Maj	Uni	1991-2006
Bulgaria	Semi pres	Prop	Uni	1990-2007
Brazil	Pres	Prop	Fed	1985-2007
Central Africa Rep	Semi pres	Maj	Uni	1993-2002
Chile	Pres	Prop	Uni	1989-2007
Congo Brazzaville	Semi pres	Maj	Uni	1992-1996
Comoros	Semi pres	Maj	Fed	1990-1994
	N-A	Maj	Fed	1996-1998
	Pres	Maj	Fed	2002-2007
Djibouti	N-A	N-A	Uni	1999-2007
Algeria	N-A	N-A	Uni	2004-2007
Ethiopia	N-A	N-A	Fed	1993-2007
Fiji	N-A	N-A	Uni	1984-1986
	Parl	Maj	Uni	1990-2005
Ghana	Pres	Maj	Uni	1996-2007
Gambia	N-A	N-A	Uni	1984-1993
Guinea Bissau	N-A	N-A	Uni	1994-1997
	Semi pres	Prop	Uni	1999-2002
	Semi pres	Prop	Uni	2005-2007
Guatemala	Pres	Prop	Uni	1986-2007
Guyana	N-A	N-A	Uni	1992-2007
Croatia	Semi pres	Mixt	Uni	1999
	Semi pres	Prop	Uni	2000-2007
Haiti	N-A	N-A	Uni	1990
	N-A	N-A	Uni	1994-1999
	N-A	N-A	Uni	2005-2007
Hungary	Parl	Mixt	Uni	1989-2007
Indonesia	Pres	Prop	Uni	1999-2007
Iran	N-A	N-A	Uni	1997-2003
Kenya	Pres	Maj	Uni	2002-2007
Cambodia	N-A	N-A	Uni	1990-1996
	N-A	N-A	Uni	1998-2007
Korea South	Pres	Mixt	Uni	1987-2007
Lebanon (obs : 1984-1989; 2005-2007)	N-A	N-A	Uni	2005-2007
Liberia	Pres	Maj	Uni	2003-2007
Lesotho	N-A	N-A	Uni	1993-2007
	N-A	N-A	Uni	1999-2007
Madagascar	Semi pres	Prop	Uni	1991-1997
	Semi pres	Mixt	Uni	1998-2006
	Semi pres	Maj	Uni	2007
Mexico	Pres	Mixt	Fed	1994-2007
Mali	Semi pres	Maj	Uni	1992-2007
Mongolia	Parl	Maj	Uni	1990-1991
	Semi pres	Maj	Uni	1992-2007
Mozambique	N-A	N-A	Uni	1994-2007
Malawi	Pres	Maj	Uni	1994-2007
Niger	Semi pres	Mixt	Uni	1991-1995
	Semi pres	Mixt	Uni	1999-2007
Nigeria	Pres	Maj	Fed	1999-2007
Nicaragua	Pres	Prop	Uni	1990-2007
Nepal	Parl	Maj	Uni	1990-2001
	N-A	Maj	Uni	2006-2007
Pakistan	Parl	Maj	Fed	1988-1998
	N-A	Maj	Fed	2007
Panama	Pres	Mixt	Uni	1989-2007
Peru	Pres	Prop	Uni	1984-1991
	Pres	Prop	Uni	1993-2007
Philippines	Pres	Maj	Uni	1986-1997
	Pres	Mixt	Uni	1998-2007
Poland	Semi pres	Prop	Uni	1989-2007
Paraguay	Pres	Mixt	Uni	1989-1992
	Pres	Prop	Uni	1993-2007
Romania	Semi pres	Prop	Uni	1990-2007
Senegal	Semi pres	Mixt	Uni	2000-2007
Solomon Islands	Parl	Maj	Uni	1984-1999
	Parl	Maj	Uni	2004-2007
Sierra Leone	Pres	Prop	Uni	1996
	Pres	Prop	Uni	2001
	Pres	Maj	Uni	2002-2007
Thailand	Parl	Maj	Uni	1984-1990
	Parl	Maj	Uni	1992-2000
	Parl	Mixt	Uni	2001-2005
Uruguay	Pres	Prop	Uni	1985-2007
Congo Kinshasa	N-A	N-A	Uni	2003-2007
Zambia	N-A	N-A	Uni	1991-2007
Zimbabwe	N-A	N-A	Uni	1984-1986

Table C. Within and between variability of political institutions variables

	Democracy	**Presidential**	**Semi-pres.**	**Parliamentary**	**Majoritarian**	**Mixed**	**Proportional**	**Federal**	**Unitary**
Within Std.	0.28	0.17	0 .15	0.12	0.20	0.17	0.19	0.10	0.26
Between Std.	0.42	0.35	0 .26	0.39	0.29	0.19	0.41	0.32	0.42

Table D. Overview of Political Institutions

	Demo.	**Pres.**	**Semi-pres.**	**Parl.**	**Maj.**	**Mixed**	**Prop.**	**Uni.**	**Fed.**
Regions									
World	0.58	0.38	0.19	0.43	0.30	0.15	0.55	0.78	0.22
East Asia & Pacific	0.66	0.23	0.07	0.70	0.69	0.27	0.04	0.82	0.18
Eastern Europe & Central Asia	0.86	0.00	0.52	0.48	0.04	0.20	0.76	0.93	0.07
Latin America	0.85	0.89	0.00	0.11	0.11	0.15	0.74	0.81	0.19
Middle-East & North Africa	0.14	0.00	0.00	1.00	0.00	0.17	0.83	1.00	0.00
North America	1.00	0.50	0.00	0.50	1.00	0.00	0.00	0.00	1.00
South Asia	0.58	0.27	0.00	0.73	0.80	0.00	0.20	0.61	0.39
Sub-Saharan Africa	0.33	0.44	0.42	0.14	0.64	0.17	0.19	0.81	0.19
Western Europe	1.00	0.12	0.29	0.59	0.11	0.09	0.80	0.71	0.29
Incomes									
Low-income	0.36	0.40	0.29	0.31	0.59	0.10	0.31	0.83	0.17
Lower-middle income	0.61	0.62	0.13	0.25	0.26	0.12	0.62	0.92	0.08
Higher-middle income	0.69	0.53	0.08	0.39	0.15	0.30	0.55	0.70	0.30
High-income none OECD	0.41	0.36	0.20	0.44	0.00	0.00	1.00	1.00	0.00
High-income OECD	1.00	0.09	0.24	0.67	0.28	0.12	0.60	0.62	0.38
Periods									
1984-1986	0.39	0.37	0.11	0.52	0.34	0.02	0.64	0.72	0.28
1987-1989	0.41	0.39	0.10	0.51	0.35	0.06	0.59	0.70	0.30
1990-1992	0.54	0.35	0.19	0.46	0.32	0.12	0.56	0.79	0.21
1993-1995	0.61	0.34	0.23	0.43	0.35	0.12	0.53	0.78	0.22
1996-1998	0.62	0.37	0.20	0.43	0.31	0.16	0.53	0.78	0.22
1999-2001	0.65	0.38	0.23	0.39	0.26	0.22	0.53	0.80	0.20
2002-2004	0.68	0.43	0.19	0.38	0.27	0.20	0.53	0.79	0.21
2005-2007	0.69	0.43	0.20	0.37	0.28	0.18	0.54	0.80	0.20
Colonial Origins									
Spain	0.91	1.00	0.00	0.00	0.00	0.18	0.82	0.83	0.17
English	0.44	0.39	0.00	0.61	0.83	0.00	0.17	0.78	0.22
French	0.23	0.24	0.76	0.00	0.42	0.32	0.25	0.88	0.12
Portuguese	0.50	0.80	0.20	0.00	0.00	0.00	1.00	0.53	0.47
Legal Origins									
English	0.59	0.27	0.05	0.68	0.77	0.03	0.20	0.72	0.28
German	0.98	0.38	0.21	0.41	0.10	0.49	0.41	0.38	0.62
French	0.52	0.61	0.17	0.22	0.13	0.17	0.70	0.80	0.20
Socialist	0.55	0.00	0.78	0.22	0.20	0.20	0.60	1.00	0.00

Note: first column displays the proportion of observations with democratic regimes in our sample. Other columns display the proportion of each constitutional arrangement in democratic regimes.

Table E: Overview of Financial Development

Variables	Financial_depth	Private credit/GDP	Bank assets/GDP	Liquid liabilities/GDP
Regions				
World	-0.02	36.60	45.49	45.69
East Asia & Pacific	0.46	58.14	69.27	67.26
Eastern Europe & Central Asia	-0.01	25.52	36.78	36.83
Latin America	-0.06	26.78	32.63	33.91
Middle-East & North Africa	0.38	35.66	51.71	60.88
North America	0.91	68.83	77.41	77.48
South Asia	-0.09	20.36	28.56	39.88
Sub-Saharan Africa	-0.87	13.10	16.94	23.26
Western Europe	1.03	84.70	101.01	80.86
Income				
Low-income	-0.75	14.66	19.02	26.17
Lower-middle income	0.02	29.08	37.53	43.26
Higher-middle income	0.16	35.23	43.88	44.23
High-income none OECD	1.09	75.34	95.84	99.98
High-income OECD	1.02	83.87	100.40	81.17
Periods				
1984-1986	-0.10	31.64	40.49	42.45
1987-1989	-0.08	33.57	42.23	43.00
1990-1992	-0.14	32.79	40.72	42.13
1993-1995	-0.11	33.79	43.26	42.69
1996-1998	-0.07	35.80	45.18	44.12
1999-2001	0.02	38.77	47.53	47.39
2002-2004	0.06	39.62	49.05	49.34
2005-2007	0.15	43.95	52.40	51.55

Note: average of each financial development variable by regions, income levels and periods.

Table F1. Overview of Controls

Variables	GDP/cap	GDP growth	Trade openness	Financial openness	Inflation	Inflation volatility
Regions						
World	5800.76	1.81	68.68	0.10	45.31	48.90
East Asia & Pacific	6688.58	3.34	87.81	0.33	7.43	4.59
Eastern Europe & Central Asia	3346.88	1.68	75.67	-0.09	59.23	55.46
Latin America	3012.93	1.59	61.30	0.26	112.72	128.81
Middle-East & North Africa	7650.35	1.50	85.41	0.43	16.13	6.67
North America	26387.97	2.05	40.61	2.46	2.93	0.67
South Asia	468.09	3.73	45.34	-1.09	7.89	2.61
Sub-Saharan Africa	725.45	1.04	61.69	-0.70	69.56	74.85
Western Europe	20737.14	2.19	68.13	1.60	3.63	0.96
Incomes						
Low-income	418.41	1.31	56.19	-0.74	60.08	63.16
Lower-middle income	1762.83	1.94	76.38	-0.29	55.38	62.47
Higher-middle income	5527.38	2.50	79.71	0.53	63.07	58.75
High-income none OECD	20188.92	1.86	123.75	1.43	9.75	5.41
High-income OECD	21987.46	2.10	59.35	1.87	3.48	1.00
Political Regimes						
Autocracy	2784.41	1.29	69.05	-0.41	65.07	71.08
Democracy	8153.14	2.19	68.53	0.50	34.31	32.65
Forms of Democracies						
Government Forms						
Presidential	5317.79	2.08	60.36	0.19	90.05	102.98
Semi-presidential	7967.50	1.62	69.16	0.38	20.81	17.51
Parliamentary	12508.53	2.41	69.20	0.90	9.32	3.34
Electoral Rules						
Majoritarian	7594.81	2.16	64.16	0.40	9.26	4.82
Mixt	8465.08	1.99	64.91	0.83	8.53	3.84
Proportional	9608.91	2.12	67.12	0.51	68.39	75.22
State Forms						
Unitary	6604.77	2.17	71.17	0.38	33.17	34.22
Federal	11952.84	2.02	54.83	0.63	58.78	55.52

Note: average of each control variable by regions, income levels, political regimes and constitutional arrangements.

Table F2. Descriptive statistics of dependent, interest and control variables

	Obs.	Mean	Std.	Min	Max
Fi_depth	894	-0.02	0.99	-7.29	2.03
Fi_depth2	832	-0.02	0.99	-5.88	1.86
Credits	923	36.61	35.66	0.01	187.55
Liquid Liabilities	898	45.69	33.61	0.06	235.44
Bank assets	925	45.49	40.64	0.02	244.32
Assets ratio	895	74.71	23.79	10.75	99.75
Democracy	1092	0.55	0.50	0.00	1.00
Presidential	1008	0.20	0.40	0.00	1.00
Semi presidential	1008	0.10	0.30	0.00	1.00
Parliamentary	1008	0.22	0.42	0.00	1.00
Majoritarian	1010	0.15	0.36	0.00	1.00
Mixed	1010	0.07	0.26	0.00	1.00
Proportional	1010	0.29	0.45	0.00	1.00
Unitary	1092	0.43	0.49	0.00	1.00
Federal	1092	0.12	0.33	0.00	1.00
Synergy	1008	0.85	0.94	0.00	3.00
Age democracy	1092	21.96	39.80	0.00	207.00
GDP per cap.	1051	5800.76	8892.74	62.68	41634.33
GDP growth	1049	1.81	4.24	-32.32	39.88
Inflation	931	2.11	1.17	-1.03	7.99
Inflation volatility	952	48.90	511.32	0.02	13015.49
Financial openness	1048	0.10	1.56	-1.86	2.46
Trade openness	1098	68.68	42.94	1.85	423.20
Neighbouring democracy	1092	0.52	0.34	0.00	1.00
Neighbouring presidential	1008	0.21	0.28	0.00	1.00
Neighbouring semi presidential	1008	0.10	0.15	0.00	0.63
Neighbouring parliamentary	1008	0.23	0.23	0.00	1.00
Neighbouring majoritarian	1010	0.17	0.19	0.00	1.00
Neighbouring mixed	1010	0.08	0.09	0.00	0.37
Neighbouring proportional	1010	0.30	0.32	0.00	0.90
Neighbouring unitary	1092	0.45	0.26	0.00	1.00
Neighbouring federal	1092	0.13	0.14	0.00	1.00
Neighbouring synergy	1008	0.58	0.69	0.00	0.80

Table G. Bilateral correlation between the most financial development enhancing constitutional arrangements

	Parliamentary	Mixed	Federal
Parliamentary	1.0000		
Mixed	0.1615***	1.0000	
Federal	0.2095***	0.1166***	1.0000

Note : *** p<0.01, ** p<0.05, * p<0.1

Table I. Bilateral correlation between financial development variables

	Financial depth	**Private credit/GDP**	**Bank assets/GDP**	**Liquid Liabilities**
Financial depth	1.0000			
Private credit/GDP	0.7871***	1.0000		
Bank assets/GDP	0.8081***	0.9713***	1.0000	
Liquid Liabilities	0.7915***	0.8698***	0.9056***	1.0000

Note : *** p<0.01, ** p<0.05, * p<0.1

Appendix 3 - Robustness

Table A1. Alternative Measure of Financial Development: Political Regimes and Constitutional Arrangements Variables

	Political Regimes			Government Forms			Electoral Rules			State Forms		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	OLS	FEVD	FEVD	OLS	FEVD	FEVD	OLS	FEVD	FEVD	OLS	FEVD	FEVD
Democracy	0.783***	0.704***	0.777***									
	[0.142]	[0.128]	[0.268]									
Presidential				0.574***	0.493**	0.504*						
				[0.171]	[0.241]	[0.288]						
Semi presidential				0.572**	0.416	0.404						
				[0.224]	[0.298]	[0.357]						
Parliamentary				1.133***	1.098***	1.075***						
				[0.167]	[0.219]	[0.412]						
Majoritarian							0.711***	0.607***	0.645***			
							[0.173]	[0.191]	[0.246]			
Mixed							0.908***	0.781***	0.779***			
							[0.230]	[0.217]	[0.275]			
Proportional							0.780***	0.698***	0.659*			
							[0.166]	[0.211]	[0.368]			
Unitary										0.694***	0.621***	0.682***
										[0.143]	[0.133]	[0.245]
Federal										1.074***	0.994***	1.147**
										[0.205]	[0.340]	[0.550]
Controls	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Observations	832	613	543	761	553	487	762	554	488	832	613	543
R-squared	0.156	0.785	0.821	0.234	0.792	0.829	0.169	0.792	0.831	0.173	0.787	0.824

Note: robust standard errors are in brackets. Time dummies are included in each regression. Alternative measure of financial development: first factor extracted from the implementation of a PCA on Credit / GDP; M3 / GDP; Banks assets / Central Bank assets + Banks assets. *** p<0.01, ** p<0.05, * p<0.1.

Table A2. Alternative Measure of Financial Development: Political Systems and Joint Estimates

	Synergistic effect			Joint estimates		
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	FEVD	FEVD	OLS	FEVD	FEVD
Synergy	0.479***	0.455***	0.450**			
	[0.0700]	[0.0936]	[0.176]			
Parliamentary				0.793***	0.791***	0.745**
				[0.140]	[0.237]	[0.371]
Federal				0.442**	0.398	0.385
				[0.192]	[0.384]	[0.481]
Controls	No	No	Yes	No	No	Yes
Observations	761	553	487	761	553	487
R-squared	0.237	0.795	0.833	0.2	0.793	0.832

Note: robust standard errors are in brackets. Time dummies are included in each regression. Alternative measure of financial development: first factor extracted from the implementation of a PCA on Credit /GDP; M3 /GDP; Banks assets /Central Bank assets + Banks assets. *** p<0.01, ** p<0.05, * p<0.1.

Table B1. Alternative Measure of Political Institutions: Political Regimes and Constitutional Arrangements Variables

	Political Regimes			**Government Forms**			**Electoral Rules**			**State Forms**		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	OLS	FEVD	FEVD	OLS	FEVD	FEVD	OLS	FEVD	FEVD	OLS	FEVD	FEVD
Democracy	0.698***	0.611***	0.655**									
	[0.158]	[0.160]	[0.276]									
Presidential				0.489**	0.375	0.391						
				[0.188]	[0.318]	[0.377]						
Semi presidential				0.502**	0.351	0.31						
				[0.250]	[0.345]	[0.411]						
Parliamentary				1.076***	1.016***	0.902*						
				[0.180]	[0.297]	[0.501]						
Majoritarian							0.677***	0.571**	0.603**			
							[0.197]	[0.235]	[0.304]			
Mixed							0.869***	0.703**	0.666			
							[0.249]	[0.316]	[0.422]			
Proportional							0.775***	0.684**	0.579			
							[0.181]	[0.306]	[0.500]			
Unitary										0.608***	0.528***	0.566**
										[0.160]	[0.174]	[0.265]
Federal										0.991***	0.905**	1.007*
										[0.218]	[0.395]	[0.568]
Controls	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Observations	894	688	606	817	621	543	818	622	544	894	688	606
R-squared	0.114	0.675	0.738	0.202	0.681	0.764	0.15	0.679	0.762	0.131	0.679	0.74

Note: robust standard errors are in brackets. Time dummies are included in each regression. Alternative measure of political institutions: each political institution variable equals 0.33, 0.67 or 1 if country i in sub-period t is democratic during one, two or three years respectively. *** p<0.01, ** p<0.05, * p<0.1.

Table B2. Alternative Measure of Political Institutions: Political Systems and Joint Estimates

	Synergistic effect			**Joint estimates**		
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	FEVD	FEVD	OLS	FEVD	FEVD
Synergy	0.450***	0.402***	0.364**			
	[0.0717]	[0.0963]	[0.162]			
Parliamentary				0.779***	0.773**	0. 653
				[0.145]	[0.323]	[0.460]
Federal				0.400**	0.358	0.341
				[0.194]	[0.437]	[0.547]
Controls	No	No	Yes	No	No	Yes
Observations	817	621	543	817	621	543
R-squared	0.207	0.681	0.763	0.18	0.681	0.762

Note: robust standard errors are in brackets. Time dummies are included in each regression. Alternative measure of political institutions: each political institution variable equals 0.33, 0.67 or 1 if country i in sub-period t is democratic during one, two or three years respectively. *** p<0.01, ** p<0.05, * p<0.1.

Table C. Accounting for Outliers

	Political Regimes	**Government Forms**	**Electoral Rules**	**State Forms**	**Synergistic effect**	**Joint estimates**
	(1) WLS	(2) WLS	(3) WLS	(4) WLS	(5) WLS	(6) WLS
Democracy	0.178***					
	[0.0438]					
Presidential		0.143***				
		[0.0537]				
Semi presidential		0.041				
		[0.0714]				
Parliamentary		0.247***			0.166***	
		[0.0564]			[0.0482]	
Majoritarian			0.199***			
			[0.0561]			
Mixed			0.202**			
			[0.0783]			
Proportional			0.0644			
			[0.0521]			
Unitary				0.149***		
				[0.0443]		
Federal				0.356***	0.0908	
				[0.0656]	[0.0658]	
Synergy						0.112***
						[0.0244]
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	821	749	750	821	749	749
R-squared	0.621	0.638	0.635	0.628	0.634	0.639

Note: robust standard errors are in brackets. Time dummies are included in each regression. To account for outliers we resort to a *Weighted Least Square Estimator* (WLS). *** p<0.01, ** p<0.05, * p<0.1.

Table D. Accounting for Reverse Causality

	Democracy	**Presidential**	**Semi presidential**	**Parliamentary**	**Majoritarian**	**Mixed**	**Proportional**	**Unitary**	**Federalism**	**Synergy**
	Random probit	Random probit	Random probit	Random probit	Random probit	Random probit	Random probit	Random probit	Random probit	Ordered Random probit
fi_depth	-0.1	0.323	0.306	0.931	0.253	-0.35	-0.16	-0.39	0.625	-0.048
	[0.187]	[0.795]	[0.685]	[0.790]	[0.355]	[0.372]	[0.281]	[0.303]	[0.970]	[0.178]
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	888	811	811	811	812	812	812	888	888	811
Countries	132	124	124	124	124	124	124	132	132	124

Note: robust standard errors are in brackets. Time dummies are included in each regression. *** p<0.01, ** p<0.05, * p<0.1 Each model controls for the logarithm of GDP per capita, the logarithm of (1+age of democraties), the proportion of neighboring countries having the same political regime or constitutional arrangements as country i. Regarding the *synergy* variable specification, we introduce simultaneously the proportion of neighboring countries having parliamentary governments and federal states. All these models also include a time trend.